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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,217	02/25/2004	Edmund Arthur Flexman	CL1375USCNT	3035
23906	7590	08/08/2006	EXAMINER	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			RONESI, VICKEY M	
		ART UNIT		PAPER NUMBER
		1714		
DATE MAILED: 08/08/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/786,217	FLEXMAN ET AL.
	Examiner Vickey Ronesi	Art Unit 1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-17 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/28/04.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### *Priority*

1. If applicant desires to claim the benefit of a prior-filed application under 35 U.S.C. 120, a specific reference to the prior-filed application in compliance with 37 CFR 1.78(a) must be included in the first sentence(s) of the specification following the title or in an application data sheet. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications.

### *Information Disclosure Statement*

2. The Information Disclosure Statement (IDS) dated 6/28/2004 has been considered, however, the *Polymer Science Dictionary* and *Encyclopedia of Polymer Science and Engineering* citations have been crossed out because they don't have a publication date.

### *Specification*

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Toughened high modulus mineral-filled polyamides."

### *Claim Objections*

4. Claims 2, 3, and 11 are objected to because of the following reasons:

With respect to claims 2 and 3, the term "a mineral filler" has antecedent basis and should read as "the mineral filler."

With respect to claim 11, the use of the term “the polymer” is incorrect since the composition only includes nylons and not any polymer. Note lines 8, 12, and 14.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 9, 10, 14, 16, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 9 and 17, the term “the inorganic filler” lacks antecedent basis. Support is had only for “the mineral filler.”

With respect to claim 10, the claim is to a composition and cannot be an article since compositions do not have a shape.

With respect to claim 14, the plurals in “fatty acids, salts thereof, or a mixture thereof” are outside the scope of the claim since this phrase is used to further limit the singular “saturated organic acid, salt thereof, or mixture thereof.”

With respect to claim 16, it is rejected for being dependent on a rejected claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metzenmacher et al in view of Williams (GB 2 301 105) and Hyde (US 4,399,246).

Metzenmacher et al discloses a composition comprising flameproofing polymers such as polyamides (col. 3, lines 20-26) and 5-90 wt % (col. 3, lines 46-49) surface-treated filler such as magnesium hydroxide, calcium carbonate, titanium oxide, talc, and clay (col. 1, lines 34-58) which is treated with 0.01-10 parts by weight per 100 parts by weight filler (col. 2, lines 16-17, lines 45-46) of fatty acids and derivatives thereof such as stearic acid (col. 2, lines 30-46). For the process of making, see examples which intrinsically include homogenous mixing and cooling steps. While Metzenmacher et al does not explicitly disclose the aspect ratio of the surface-treated filler, it is considered that the disclosed particles intrinsically have the presently claimed aspect ratio of less than about 5 given that they are the same fillers as presently used and would have same shape since they are not explicitly fibrous or platy.

Metzenmacher et al fails to disclose the use of nylon 6 or nylon 66 as the flameproofing polymer or the particle size of the surface treated filler.

With respect to nylon 6 or nylon 66, Williams discloses polyamide molding compositions and teaches that flame retardant molding applications contain polyamides such as nylons (page 1, paragraphs 1 and 2; page 3, paragraph 1).

Given that Metzenmacher et al is open to the use of polyamides as the flameproofing polymer and further given that Williams teaches that nylon 6 and nylon 66 are utilized in flame

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retardant molding applications, it would have been obvious to one of ordinary skill in the art to utilize nylon 6 and/or nylon 66 as the polyamide in the composition of Metzenmacher et al.

With respect to the particle size and aspect of the filler, Hyde discloses a polyamide composition containing mineral fillers and teaches that mineral fillers having a mean average particle size of 0.2-2 microns which is the optimal particle size for impact resistant properties in molded polyamide articles (col. 3, lines 16-18).

Given that Metzenmacher et al discloses fillers like presently claimed and further given that such fillers optimally have a particle size of 0.2-2 microns for improved impact resistance properties as taught by Hyde, it would have been obvious to one of ordinary skill in the art to utilize a filler with a particle size and shape like typically used.

### *Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8/1/2006

Vickey Ronesi

*WR*

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